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EXAMINER

MATTISON, LORI K

ART UNIT	PAPER NUMBER
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1619

MAIL DATE	DELIVERY MODE
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08/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,209	Applicant(s) SIMONET ET AL.	
	Examiner LORI MATTISON	Art Unit 1619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/28/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 20-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 20-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/28/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The Group and/or Art Unit location of your application in the PTO has changed.

All correspondence regarding this application should be directed to Group Art Unit 1619.

Status of the Claims

Applicant's amendment, filed 1/28/2009 to claim 1, has been entered. Claims 2-19 have been cancelled. Claims 20-37 have been added. Claims 1 and 20-37 remain pending in the current application, of which claims 1 and 20-37 are being considered on their merits. References not included with this Office action can be found in a prior action. Any rejections of record not particularly addressed below are withdrawn in light of the claim amendments and applicant's comments.

Information Disclosure Statement

The information disclosure statement filed 1/28/2009 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered. Foreign patents in the English language and US applications and patents were considered by the examiner. The examiner notes that several of the foreign language patents were denoted as having an "English Counterpart" but no cross-reference to an English counterpart was provided.

Specification

The disclosure is objected to because of the following informalities:
section headings are not present.

Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

Claim 1 is objected to because of the following informalities: the claim is not in proper English. "...in an at least one water-soluble salt/at least one cationic polymer weight ratio of greater than or equal to 4.5..." This rejection may be overcome by correcting the grammatical structure of the claim such that it is clear that the weight ratio between the at least one water soluble salt and the at least one cationic polymer is greater than or equal to 4.5.

Claims 22 and 35 are objected to because of the following informalities: the language is unclear. The "and" should be an "or."

For clarity, and if appropriate, Applicant may wish to consider modifying claim 22 to "...said at least one surfactant is chosen from at least one anionic surfactant, characterized in that said at least one anionic surfactant is optionally combined with at least one surfactant chosen from amphoteric or nonionic surfactants."

For clarity, and if appropriate, Applicant may wish to consider modifying claim 35 to "The composition as claimed in claim 1, characterized in that the cosmetically acceptable aqueous medium is selected from water or a mixture of water and at least one organic solvent."

Claims 24-30, 33, and 36 are objected to because of the following informalities: the language is unclear. Applicant may wish to consider changing the format of the phrase "chosen from x, y, and z," in the above claims to that of

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a proper Markush group by using the format "selected from the group consisting of x, y, and z."

Claims 24 and 25 are objected to because of the following informalities: incorrect punctuation. In particular, commas and semicolons are being used interchangeably. Applicant may overcome these objections by correcting the punctuation of these claims.

Claim 29 is objected to because of the following informalities: incorrect punctuation. In particular, a comma is missing between "acids" and "and (5)..." Applicant may overcome this objection by correcting the punctuation of this claim.

Claim 33 is objected to because of the following informalities: a typographical error. "...guar gums modified with a 2,3-epoxypropyltrimethylammonium salt..." is mistakenly claimed as "guar gums modified with a 2,3-30 epoxypropyltrimethylammonium salt..."

Claim 34 is objected to because of the following informalities: a grammatical error. A period appears in the middle of the claim (between "total" and "weight"). Applicant may overcome this objection by correcting the punctuation of this claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 remains and newly added claims 20-22, 24-27, 29-32, 34, 35, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 4,940,576 (hereinafter the '576) by Walsh as evidenced by the Merquat 100 product information guide and US Patent No. 5,744,062 (hereinafter the '062) by Dahms.

Invention Summary: The claims are composition claims which are drawn to an water-in-water emulsion which comprises: 1) a salt (which may be organic or inorganic) in an amount at least 2.25 wt %, 2) a cationic polymer with a molecular weight greater than 10^5 in an amount that is at least 0.5 wt % of the composition, and 3) at least one surfactant in an amount from 4-40 wt% of the composition. Several of remaining claims further specify the amounts of components and their ratio to one another.

Claim 1: The '576 prior art teaches an equivalent composition. Example 4 (Col. 7, lines 55-end) teaches a composition which comprises the surfactants sodium lauryl ether sulphate and butyl digol in a combined amount of 4.6% (i.e. at least one surfactant wherein the amount ranges from 4% to 50 wt %). The composition comprises the water soluble mineral, sodium chloride, in an amount

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of 12% by weight of the composition (i.e. a water soluble mineral salt in an amount that is at least 2.5 wt %). The composition also comprises the cationic polymer Merquat 100 in an amount that is 1% by weight of the composition. As evidenced by the Merquat product information sheet, Merquat 100 has a molecular weight (i.e. mass) of 1.5×10^5 (i.e. one cationic polymer with a weight average molecular mass greater than 10^5 and being present in an amount that is at least 0.5% by weight. The weight ratio of sodium chloride (i.e. water soluble salt) to Merquat 100 (i.e. cationic polymer) exemplified in Example 4 is 12, which is greater than 4.5 as recited by instant claim 1. With regard to the cosmetic composition having a cosmetically acceptable aqueous medium, Example 4 contains the aqueous medium, water. With regard to the composition being a water-in-water emulsion, the '576 prior art does not specifically disclose that the composition is a water-in-water emulsion. However, there are several features in the '576 prior art which suggest that the composition is a water-in-water emulsion. The '576 prior art discloses "liquid crystals" (Col 1, lines 35-45) which are analogous to "droplets" as disclosed by the instant specification. The liquid crystal phase may have a lamellar structure (Col. 3, lines 20-25). As evidenced by the '062 prior art, emulsions may contain a lamellar liquid crystalline phase (Col. 2, lines 60-65). The instant specification teaches that "water-in-water emulsion" is formed by mixing together cationic polymer and water soluble salts in a surfactant medium (instant specification, bottom of page 1, top of page 2). Equivalently, the '576 prior art teaches mixing a preferably cationic polymer (Col. 2, lines 15-20) (i.e. Merquat 100, example 4) and the anionic surfactant (Col 2,

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lines 64-end; Col.3, lines 1-5; Col. 3, lines 60-68; sodium lauryl ether sulphate, Example 4) to obtain a complex. The examiner notes that as disclosed by Example 4, the sodium lauryl ether sulphate and butyl digol surfactants are present in approximately 4.65 x's the amount of the Merquat. Hence, the medium is a surfactant medium.

Since claim 1 is a composition claim and an equivalent composition is known in the prior art, the examiner encourages the applicant, if appropriate, to add additional reagents, features, or process steps to the claim to distinguish it over the prior art.

Claims 20 and 21: With regard to the ratio of water-soluble salt: cationic polymer, the ratio of sodium chloride to Merquat 100 is 12 (i.e. the weight ratio is that ranges from 4.5 to 19; i.e. the weight ratio ranges from 4.5 to 15) in the composition of Example 4 (column 7, lines 50-end).

Claims 22 and 24-27: The composition of Example 4 of the '576 prior art exemplifies use of the anionic surfactant, sodium lauryl ether sulfate (3EO) but does not contain the optional amphoteric and nonionic surfactants.

If appropriate, the applicant may wish to consider amending instant claim 22 to require inclusion of an amphoteric surfactant (e.g. remove the word "optionally") in order to overcome the examiner's rejections of instant claim 22 under 35 USC 102(b) with the anticipatory '576 prior art.

With regard to instant claims 24 and 25, the anionic surfactant, sodium lauryl ether sulfate (3EO), is recognized by the artisan of ordinary skill in the art as being an alkaline earth metal salt of an alkyl ether sulfate in which the alkyl

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group is characterized as having 12 carbon atoms (i.e. an alkyl group contain 6 to 24 carbon atoms). With regard to instant claims 26 and 27, the anionic surfactant, sodium lauryl ether sulfate (3EO), is recognized by the artisan of ordinary skill in the art as being a sodium salt of an alkyl ether sulfate in which the alkyl group contains 12 carbon atoms (i.e. an alkyl group contain 6 to 24 carbon atoms).

Claims 29-31: The water soluble mineral salt of Example 4 (column 7, lines 50-end) is sodium chloride which the artisan of ordinary skill would recognize as being a water soluble salt which comprises the monovalent metal, sodium. Sodium chloride is present in an amount of 12% by weight of the composition (i.e. an amount ranging from 2.25 wt % to 30 wt %) in Example 4 (column 7, lines 50-end).

Claim 32 and 34: The composition of Example 4 (column 7, lines 50-end) comprises the cationic polymer, Merquat 100. As evidenced by the Merquat product information sheet, Merquat 100 has a molecular weight (i.e. mass) of 1.5×10^5 (i.e. at least one cationic polymer with an average molecular weight which ranges from greater than 10^5 to 10^8). With regard to claim 34, the Merquat 100 cationic polymer is present in an amount of 1% by weight of the composition of Example 4 (i.e. an amount ranging from 0.5 to 10% by weight of the composition).

Claim 35: The composition of Example 4 comprises water (column 7, lines 50-end; i.e. a cosmetically acceptable aqueous medium which is selected from water).

Claim 37: The '576 discloses that the composition of Example 4 is a single phase hair rinse conditioner (column 7, lines 40-45). The '576 goes on to teach that the composition of Example 4 has a wet comb value of 30 (column 8, lines 1-10), disclosing that the composition was used in a wet comb test. The '576 discloses that the steps of the wet comb test comprise applying the hair conditioner test product onto hair swatches (i.e. keratin material), massaging the product into hair for 30 seconds (i.e. optional leave-in time) and rinsing with water (i.e. rinsing the said composition out; column 6, lines 40-65). The composition used in the wet comb test provided a value, demonstrating that it was an effective amount to remove tangles over that of the standard surfactant (i.e. T1; (column 6, lines 55-end; column 7, lines 1-15). Therefore, Example 4 teaches the steps of the method of applying an effective amount of the composition of Example 4 to a keratinous material (i.e. hair swatch), leaving it in for 30 seconds, and rinsing it out after the leave-in time.

Reply

Applicant traverses the rejection under 35 USC 102(b) by alleging that the Walsh reference (i.e. the '576 prior art) does not teach every element of amended claim 1 (Reply, page 12, paragraph 2). In particular, applicant alleges that Walsh only comprises 2.6% weight anionic surfactant which is outside of the claimed range and that the composition is a single phase liquid hair rinse conditioner (Reply, page 13, paragraphs 1 and 2). Applicant points to the

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submitted affidavit which shows that the composition is not a water-in-water emulsion (Reply, page 13, paragraph 3).

Applicant's arguments have been fully considered but they are not persuasive. With regard to the amount of the surfactant, the amended claim 1 recites "...at least one surfactant, wherein the amount of said surfactant ranges from 4% to 50% by weight..." which is open claim language that permits multiple surfactants to be present in the composition provided that the total amount of surfactant is between 4 to 50 % by weight. Example 4 of Walsh comprises 2.6 % weight of the anionic surfactant, sodium ether sulfate (3 EO), and the cosurfactant, butyl digol, in an amount of 2.0% by weight. The combined total of these surfactants is 4.6 % by weight of the total composition and is within the recited range.

With regard to the composition being a water-in-water emulsion, as discussed above, the '576 teaches that the compositions of the present invention are emulsions with a lamellar liquid crystal phase. The composition of the '576 prior art and the recited composition comprise the same reagents in the recited amounts, therefore the composition of the '576 prior art also has the property of being a water-in-water emulsion. Since amended claim 1 is a composition claim and an equivalent composition has been identified in the prior art, the applicants are encouraged to consider adding additional limitations or product-by-process limitations in order to distinguish their invention from the prior art and overcome the rejections under 35 USC 102(b).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1 remains rejected under 35 U.S.C. 103(a) and newly added claims 20-27, 29-32, and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4,940,576 (hereinafter the '576) by Walsh as evidenced by the Merquat 100 product information guide and US Patent No. 5,744,062 (hereinafter the '062) by Dahms.

Invention Summary: The claims are composition claims which are drawn to an water-in-water emulsion which comprises: 1) a salt (which may be organic or inorganic) in an amount at least 2.25 wt %, 2) a cationic polymer with a molecular weight greater than 10^5 in an amount that is at least 0.5 wt % of the composition, and 3) at least one surfactant in an amount from 4-40 wt% of the composition. Several of remaining claims further specify the amounts of components and their ratio to one another, while other claims are drawn to additional additives, and more narrowly claims the at least one surfactant as being a mixture of an anionic surfactant and an amphoteric surfactant.

The limitations of instant claims 1, 20-22, 24-27, 29-32, 34, 35, and 37 are addressed above.

Claim 23: As discussed above, the composition embodied Example 4 of the '576 comprises the anionic surfactant, sodium lauryl ether sulphate. The '576 prior art provides an invitation to modify the composition by teaching that amphoteric surfactants may be included in the composition in order to advantageously solubilize any perfume oil that is added to the hair conditioner (column 5, lines 20-45).

The '576 prior art does not embody an amphoteric surfactant in the hair conditioner of Example 4.

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have looked to the teachings of the '576 prior art and modified the composition through addition of a perfume oil and an amphoteric surfactant, yielding a composition which comprises an anionic

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surfactant and amphoteric surfactant, in order to solubilize the perfume oil which provides an attractive scent to the composition.

Claim 36: The '576 prior art provides an invitation to modify the composition of the present invention by explicitly stating that, "An optional, although preferred, additional component of the rinse conditioner product of this invention is a thickening agent in order to increase the viscosity of the composition. Any suitable nonionic thickener may be used for this purpose, for example neutral polymeric thickeners such as the cellulosic thickeners which include hydroxyethylcellulose, hydroxypropylcellulose, polyacrylamide and polyethylene glycol (column 5, lines 10-25). The '576 prior art exemplifies use of hydroxypropylcellulose as a thickening agent (i.e. a synthetic thickener/viscosity regulator) in the hair rinse conditioner of Example 1 (column 6, lines 5-30).

The '576 prior art does not embody a thickening agent in Example 4.

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have looked to the teachings of the '576 prior art and incorporate the nonionic synthetic thickener, hydroxyethyl cellulose because the '576 teaches that it is preferable to include a thickener in the composition and specifically embodies hydroxyethylcellulose in a hair rinse conditioner.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over the '576 prior art, as evidenced by the Merquat 100 product information guide

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and the '062 art, as applied to claims 1, 20-27, 29-32 and 34-37 above, and further in view of US Patent No. 5,720,964 (Murray, 1998; hereinafter the '964).

The limitations of instant claims 1, 20-27, 29-32 and 34-37 are addressed above.

The '576 prior art teaches advantageous inclusion of amphoteric surfactants to solubilize any perfume oils that are added the conditioning compositions (column 5, lines 20-45).

The '576 prior art does not teach inclusion of (C₈-C₂₀) alkyl betaines as set forth by instant claim 28.

The '964 prior art teaches a hair conditioning composition (title). The '964 prior art goes on to teach that alkyl betaines, preferably lauryl betaine (which would be recognized as the artisan of ordinary skill as a C₁₂ alkyl betaine) is an amphoteric surfactant which is suitable for use in the conditioning composition (column 5, lines 35-50).

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have modified the composition of Example 4 by inclusion of lauryl betaine (i.e. a C₁₂ alkyl betaine) in the composition because the '576 prior art teaches inclusion of amphoteric surfactants in the composition and lauryl betaine is taught as a preferred amphoteric surfactant for inclusion in hair conditioning compositions.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over the '576 prior art, as evidenced by the Merquat 100 product information guide

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and the '062 art, as applied to claims 1, 20-27, 29-32 and 34-37 above, and further in view of US Patent No. 5,589,177 (Herb, 1996; hereinafter the '177) and US Patent No 6,323,165 (Heiler, 2001; hereinafter the '165).

The '576 prior art teaches that the hair rinse conditioner composition comprises "liquid crystals" (Col 1, lines 35-45). The liquid crystal phase may have a lamellar structure (Col. 3, lines 20-25). The '576 prior art goes on to teach inclusion of several cationic polymers for use in the invention (column 2, lines 15-50).

The '576 prior art does not teach inclusion of a cationic polymer which may be a cellulose ether derivative comprising quaternary ammonium groups as set forth by instant claim 33.

The '177 prior art teaches an emulsion which comprises a surfactant system that is capable of forming lamellar liquid crystals around droplets of the primary emulsion (column 3, lines 25-40). The '177 prior art teaches that polyquaternium-6 and polyquaternium-10 are exemplary water soluble quaternary compounds for inclusion in lamellar liquid crystal emulsion for conditioning hair (column 10, lines 10-end; column 11, lines 1-15). The '177 goes on to teach that the constituents of this lamellar liquid crystal emulsion may be materials for the hair such as hair conditioners and dyes (column 3, lines 35-45).

Table 1 of the '165 prior art teaches that the tradename Merquat 100 is known by the industry (CTFA) as Polyquaternium-6 while the tradename Polymer-JR is known by the industry as Polyquaternium-10 (Table 1, column 11,

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lines 10-65). Polymer JR/ Polyquaternium-10 is recognized by the artisan of ordinary skill as being a cellulose ether derivative derived from hydroxyethyl-cellulose and trimethylammonium-substituted epoxide (i.e. a cellulose ether derivative comprising quaternary ammonium groups).

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to have added the functionally equivalent to cationic polymer polyquaternium-10 (i.e. a cellulose ether derivative comprising quaternary ammonium groups) to the composition taught by the '576 prior art because the hair composition of the '576 prior art comprises a lamellar phase of liquid crystals and polyquaternium-10 and polyquaternium-6 are functionally equivalent cationic polymers taught for use in hair compositions which comprise lamellar liquid crystals by the '177 prior art.

Reply

Applicant alleges that the composition of the prior art is not a water-in-water emulsion and discusses the data presented in their affidavit which was submitted on 1/28/2009 (Reply, page 15, paragraph 1).

As discussed above, instant claim 1 is a product claim and an equivalent product has been found in the prior art.

The examiner is not persuaded by applicant's data which were submitted in the affidavit submitted on 1/28/2009 because the applicant did not apply the composition to a keratinous material as directed by the Walsh reference (i.e. the '576 prior art). Walsh clearly states that the liquid crystal phase is formed while

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using the products of the invention and discusses how the liquid crystal phase is generated by use of the products (column 5, lines 55-end). Walsh further teaches that the generated liquid crystals may be hexagonal or transformed to a lamellar liquid crystal phase (column 5, lines 55-end). The composition of Example 4 was used in a comb test. Therefore, a liquid crystal phase was generated (column 8, lines 1-20).

Furthermore, the examiner observes that the sodium lauryl ether sulphate that applicant used to recreate the invention of the Walsh patent had an ethoxylation degree of 2.2, while Walsh clearly discloses that the sodium lauryl ether sulfate used in the composition of Example 4 had a degree of ethoxylation of 3 (column 7, lines 55-end). Therefore, an equivalent surfactant was not used to recreate the Walsh invention.

Applicant alleges that the Walsh references teaches away from their invention because the liquid crystals form only after the compositions of the present invention have been substantially diluted which modifies the percentages of the reagents (Reply, page 15, paragraph 3).

The examiner disagrees with applicants' assessment. The composition of Example 4 underwent the wet comb test, disclosing that the liquid crystal phase was generated (column 8, lines 1-20). Walsh goes on to teach that in the wet comb test, excess water is removed prior to addition of the hair conditioner test product. Therefore, there is a minimal amount of water remaining in the hair and change to the percentages of reagents is negligible.

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Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LORI MATTISON whose telephone number is (571)270-5866. The examiner can normally be reached on 8am-6pm (Monday-Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571)272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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